To: Mahmud, Shahid[Mahmud.Shahid@epa.gov]
Cc: Ostrander, David[Ostrander.David@epa.gov]

From: Williams, Laura

**Sent:** Wed 9/30/2015 2:13:57 PM

**Subject:** Fw: Bullion approved to continue work!

This is all I saw for approval to proceed with Bullion Mine work (first in our region) - not memos. I will forward the emails we got for Red and Bonita, and Penn Mine as well. - lw

From: Williams, Laura

**Sent:** Thursday, August 13, 2015 11:25 PM

To: Nguyen, Duc

**Subject:** Bullion approved to continue work!

Sent from my iPhone

Begin forwarded message:

From: "Hestmark, Martin" < Hestmark.Martin@epa.gov>

Date: August 13, 2015 at 6:58:49 PM MDT

To: "Woolford, James" < Woolford.James@epa.gov>

Cc: "Murray, Bill" <Murray.Bill@epa.gov>, "Stalcup, Dana"

< <u>Stalcup.Dana@epa.gov</u>>, "Cheatham, Reggie" < <u>cheatham.reggie@epa.gov</u>>,

"McGrath, Shaun" < McGrath.Shaun@epa.gov >, "DalSoglio, Julie"

<DalSoglio.Julie@epa.gov>, "Stavnes, Sandra" <Stavnes.Sandra@epa.gov>,

"Ostrander, David" < Ostrander. David@epa.gov>, "Williams, Laura"

<williams.laura@epa.gov>

Subject: Re: Urgent Region 8 Request for Clarification on Cessation Directive

Do we have something in front of Reggie and k for gold king and red and Bonita?

Sent from my iPhone

On Aug 13, 2015, at 6:25 PM, Woolford, James < Woolford.James@epa.gov > wrote:

Bill, et. al.

Thanks for inquiring about this site.

I have coordinated with the OSWER IO - Mathy, Barry, and Nitin.

Based on the description in your email, and as you recommend in your email, we approve your continuing your response work at Bullion Mine.

Jim Woolford, Director

Office of Superfund Remediation and Technology Innovation

Office of Solid Waste and Emergency Response

**US EPA** 

Phone: 703-603-8960 (office)

Mailing address:

1200 PA Ave. NW

Washington, DC 20460

Mail Code - 5201 P

Address

2777 S. Crystal Drive

Arlington, VA 22202

## Room 5622

Note - EPA email cannot receive or send emails greater than 25 mbs.

From: Murray, Bill

Sent: Thursday, August 13, 2015 7:14 PM

To: Woolford, James; Stalcup, Dana; Cheatham, Reggie

Cc: McGrath, Shaun; Hestmark, Martin; DalSoglio, Julie; Stavnes, Sandra; Ostrander, David;

Williams, Laura

Subject: Urgent Region 8 Request for Clarification on Cessation Directive

Subject: Clarification on the Exclusion from the Cessation Directive for Time Critical Removal Actions in general and specifically at Basin Mining NPL Site

Clarification Request: Based on the draft language in the Woolford/Cheatam memo, we want to know if Time Critical Removal Actions are/will be excluded from the cessation directive. We have a number of Time Critical Removal Actions underway at mining sites and this clarification is urgently needed. We would like a written confirmation that we can continue these removals.

BACKGROUND on Bullion Mine at the Basin Mining NPL Site

Removal activities to be completed for OU6 are:

- Installation of a relief well near the Bullion Mine adit intercept boring to prevent a blowout, and to pump the AMD water for treatment in 2015. Local drilling subcontractors to be determined and procured by ER (FY14).
- Removal of site non-historical cabin structures. Clearing and grading area in designated retention pond location, and construction of retention ponds (FY14).
- Treatment of approximately 2.5 million gallons of trapped mine water, and discharging treated water to Jill Creek (FY15).

- Removal of debris creating blockage in adit and installation of a drainage system to allow the AMD flowing freely from the mine adit onto the existing rock-lined channel (FY15).
- Ongoing road maintenance for site accessibility and safety (FY14, FY15).
- Disposal of contaminated sludge and debris at Luttrell Repository

The OSC has placed a berm along the road to contain and direct any adit flow to the treatment/retention pond. He also will have an excavator on site today just in case. We have pumped the volume of water down in the adit behind the debris plug, those materials may have dried out and shifted position somewhat. If we now stop pumping and treating, the mine would refill and put pressure back on the destabilized plug, which could result in a blowout. The safest path forward is to continue to pump and treat and fully dewater the mine. The State is fully supportive of our continued dewatering effort.

The distance from the collapsed portal to the well that we are pumping water out of is about 300 feet. If the adit diameter is 4' (most likely scenario), the volume in the adit below the well is 28,201 gallons. If the diameter is 6', the volume is 63, 451 gallons. To be extremely conservative, if the diameter is 10', the volume is 176,255 gallons. Our treatment pond below the adit portal holds 350,000 gallons, so even with an ongoing flow rate of AMD from the mine of 10 to 20 gallons/minute, this pond is large enough to contain the mine sludges left in the tunnel between the well and the portal.

It is clear that ongoing pump and treatment of the AMD mine pool in the Bullion adit is the safest path forward as it is relieving pressure on the debris plug, and it would be counter-productive to stop our pumping and treating of mine water now. We believe, based on water elevation measurements in the well standpipe, that we've removed over half the volume of water that was in the adit. The total volume we estimated in the adit was approximately 2.5 million gallons prior to beginning the pumping and treating operation. The OSC is excavating a channel over to the treatment/retention pond today in the unlikely event that the debris plug fails before we complete the pump and treat operations. We have the equipment and materials on site to capture and treat any unexpected breach of the debris plugged adit. I can provide additional pictures and would be happy to go up to the site with you this afternoon if need be.